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Prometheus Primer

So You Want to Apply for a Low-power FM License

What to do before Prometheus Radio Project Comes to do a Workshop!
By Amanda Huron and Pete Tri Dish, with a Section by Cheryl Leanza, Esq.

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Prometheus Primer
So you want to apply
for a low-power license

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Here is a guide to the first steps in filing an application for a Low Power FM license. It was originally written to get groups started while they were waiting for PRP to get to their town and do a workshop, but it can be useful to anyone who is interested in LPFM. Doing this stuff ahead of time will enable you to get more out of our workshop, and will put you on the road to applying for a license for your own radio station. Remember, the first round of license applications will take place in May of this year, so if you wanna apply, you gotta get cracking. We were originally going to write a whole booklet ourselves, but the Media Access Project did such a good job that we decided to fold some of their application guide into ours. At the end, we also include the FCC press release about the new service and a fact sheet that they wrote about it.

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(courtesy of Cheryl Leanza, Media Access Project)
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Summary of Eligibility
Requirements and Application Procedures

February 7, 2000
by Cheryl A. Leanza, Esq., Deputy Director

[Two classes of low power radio service][Who is eligible?] [Application procedures][Granting licenses][Rules that apply after a license is granted]

On January 20, 2000, the Federal Communications Commission ("FCC":) adopted an order that created a new low power radio service. This summary contains a brief overview of the eligibility and application procedures in that order. Specific operating rules also will apply to organizations that become low power broadcasters.

These rules must be followed, and will be covered in succeeding summaries. (Specific questions about how the FCCs decision applies to you should be addressed to an experienced telecommunications attorney or member of the FCC staff. This summary does not constitute legal advice and is prepared for the convenience of the public.)

In order to transmit a radio broadcast over the air, members of the public must obtain a license from the FCC. The FCC issues licenses based on a number of criteria, including the power -- or electric wattage -- of the broadcast signal. It is illegal to broadcast without a license. An organization that has a license from the FCC is called a "licensee" and must comply with the FCCs rules. If a licensee violates the FCCs rules, it may have to pay fines or may lose its license. Broadcast licenses last 8 years, and most broadcasters can expect to receive renewal, except in the case of egregious violations of the FCCs rules.

Two classes of low power radio service

The FCC adopted two new classes of service. LP100 stations must be between 50 watts and 100 watts. LP100 service will reach approximately a 7 mile diameter. LP10 stations will be between 1 watt and 10 watts, and will reach a diameter of about 2 to 4 miles. The low power service will be noncommercial, but stations may be located anywhere on the FM band, not just on the lower portion where virtually all noncommercial stations are now.

Who is eligible for a low power license?

Noncommercial educational non-profit organizations. Individuals may not obtain low power licenses. The FCC decided that the new low power service should be noncommercial. Therefore, to obtain a low power radio license, an organization must meet the legal requirements for "noncommercial educational" licensees. A licensee may be a governmental or private educational institution, such as a public school or university or a private school.

In addition, a low power licensee may be a private, not-for-profit organization with an educational purpose. The FCC does not require alicensee to obtain tax-exempt status from the IRS (known as 501(c)(3) status), but obtaining that status may assist an organization in demonstrating that it is a non-profit to the FCC, and, it may assist the organization in other ways. (For example, the organization will not have to pay federal taxes and some foundations or lenders will not give money to an organization that does not have 501(c)(3) status.)

The definition of "educational purpose" is very broad. An organization purpose may be to educate the public about virtually any issue. For example, an acceptable purpose might be: to educate the Jonesville community about current political issues, or to educate the migrant worker community about issues important to it. A licensee must show how the programming it will air will further its educational objective.

No control by full power licensees. An organization that has a full power license (such as a current broadcaster) cannot receive a low power license. Someone who works for or manages a full-power

radio station may not be on the board of directors or otherwise control an organization with a low power license. This does not mean that a low power organization may not obtain help and advice from full-power broadcasters, but it does mean that a person involved in full-power broadcasting should not be able to directly control what the low power radio station does. Applicants should be careful when they organize their non-profits and assign responsibility and authority to act to certain individual. It may be very important to seek advice from an attorney.

The low power licensee must be local. In order to apply within the first two years of the service, an organization must either have its headquarters or campus within 10 miles of the low power radio stationantenna, or, 75 percent of its board members must live within 10 miles of the station antenna. (Public safety organizations must be located in the same jurisdiction that authorized them, thus a state public safety entity may be located anywhere in that state.) After two years, low power licensees do not have to be local, but license applicants that are local will be preferred over applicants that are not (see below).

No ownership of two stations at first, and no ownership of two stations that overlap. For the first two years of the service, no organization may have two low power licenses. (During the third year, the FCC will allow organizations to obtain up to five licenses, and after the fourth year, the maximum is 10 licenses.) No single organization may ever own licenses within 7 miles of one another.

Local chapters of national organizations. If your organization is part of a national organization, but has a distinct local office and local mission from the national organization, it will not be counted as the same organization when the FCC decides whether the organization owns more than one license.

Previously unlicensed broadcasting. If an organization was on the air without a license (this is sometimes called "pirate" radio), or an organization that is controlled by individuals that were on the air without a license, it must certify one of two statements to be eligible for a low power license. It must state either: that is voluntarily ceased operating no later than February 26, 1999, or, that it ceased operating within 24 hours of the time the FCC directed it to stop broadcasting. Applicants must not lie to the FCC. The FCC will conduct random audits of licensees. Anyone organization that lies about unlicensed broadcasting will likely lose its license if the FCC discovers the lie. Similar to full power broadcasters, individuals who were unlicensed broadcasters can give help and advice to low power applicants, but they cannot control a low power licensee.

Application Procedures

Application dates/deadlines. The FCC has not yet announced the application dates. The FCC has stated it hopes applications will be filed in May, 2000. Applications will be accepted only during a "window" that lasts for five days. Applicants cannot apply before or after the window. The FCC will announce the window dates at least 30 days before it occurs. The best way to learn when the FCC announces the dates will be to check the FCCs web site at http://www.fcc.gov.mmb.lpfm. The first window will be for LP100 stations only, LP10 stations will be available in the second window.

Application Form. The FCC is working on an electronic application

form that would be available on the FCCs web site. This form will not be mandatory, and might not be available for the first application window. The electronic form will be preferable because it will be designed to assist applicants in discovering whether they have made an error completing the application. The application form will consist of two parts -- a seven-page series of yes/no questions and information blanks, and worksheets that will help applicants answer the questions correctly. If applicants do not use an electronic form, they can use a paper form and mail it into the FCC.

Determining where licenses are available. Applicants will have to submit an application for a specific open location. This means applicants must select both the frequency (the number on the dial) and the physical location for an antenna. Not all frequencies or geographic locations are available. Because of spectrum congestion, for example, there may be several locations in the south side of a city, but none on the east side. Some cities, like New York City, do not have any low power licenses available. The FCC will issue charts that will estimate the number of stations in many large cities. In addition, available frequency changes with every modification by current full-power broadcasters. Applicants should update any information they receive on available frequencies before they apply.

The FCC is developing software for its web site that will help applicants determine where licenses are available. It does not yet know when this software will be available, although the FCC plans to have it available at least 30 days before the filing window. In addition, although the software will be as user-friendly as possible, some broadcast engineering knowledge may be necessary to use it. Applicants do not have to wait for the FCCs software. Broadcast engineers can also analyze a specific city using the information available in the FCCs order and on its web site to determine where frequencies are available. You may want to seek volunteer assistance or pay a broadcast engineering firm to determine which licenses are available in your area.

Granting Licenses

Once an application is filed, the FCC must decide whether it can grant a license. (Applications that are incorrect technically or for other reasons will not be granted.) There are two parts to this process.

Petitions to Deny. First, the FCC must give members of the public a chance to challenge a licensee (this is called a "Petition to Deny"). Once an applicant is tentatively picked to receive a license, the FCC makes a special announcement that gives members of the public the chance to argue that the proposed licensee is, for example, lying about its application. If, after 30 days, no one comes forward, then the FCC is free to grant the license.

Not enough licenses. The second part of granting licenses is more complicated. If there are not enough licenses for all the applicants, the FCC must pick among the applicants. The FCC will first identify which applications conflict with each other -- these are called mutually exclusive applications. The FCC will give each applicants points (described below) to determine who should receive the license. The FCC will announce the list of mutually exclusive applicants, and their point totals, including tied applicants. Applicants can cooperate with each other to remove the conflicts in two ways. First, if all the mutually exclusive applicants agree, virtually any proposal to allocate the licenses can be submitted to

the FCC. Second, any number of tied applicants can pool their points if they agree to a time-sharing proposal that grants at least 10 hours per week to each applicant. Applicants will have 30 days, measured from the day the FCC makes the announcement, to submit their written time-sharing agreement to the FCC. The FCC will put the announcement on its web site. It may or may not give applicants individual notice.

Point system for preferred characteristics. The FCC will evaluate applicants according to three criteria -- they will assign points for these criteria, the applicant with the most points will receive the license. Applicants will receive one point for each of the following three criteria: (1) "established community presence" -- the applicant must certify that it met the FCCs "local" criteria for the last two years (headquarters, campus, or 75% of board within 10 miles of the proposed antenna); (2) the applicant pledges to operate at least 12 hours per day; (3) the applicant pledges it will broadcast at least 8 hours per day of programming that was produced within 10 miles of the antenna.

Strategy in case of many applicants and point ties. The FCC will allow applicants that tie to pool their points together. This means if you think you and another organization will want to work together, it is important for each applicant to apply separately first to the FCC, and then submit a time-sharing agreement later. Since applicants will only have 30 days to submit an agreement, however, this means groups should work to establish sharing agreements in advance.

Last resort tie-breaker. If applicants are tied and there are eight or fewer applicants, the FCC will divide the eight-year license term into equal parts, and give each applicant one of the parts. After 8 years, the license will again be available to the public. If there are more than eight applicants, the FCC will divide the license term among the eight applicants with the longest "established community presence," as defined above.

Rules that Apply After a License is Granted

Constructing the antenna. Once the FCC decides an applicant will get a license, the applicant must build its antenna and facilities within 18 months. Until the applicant finishes building the antenna, the applicant will have a "construction permit." Once the antenna is finished, the applicant notifies the FCC and can obtain the license and begin broadcasting.

Other obligations. All noncommercial stations must be on the air 36 hours per week, at least 5 hours each day for 6 days -- but educational institutions are not required to operate on Saturday or Sunday. The licenses cannot be transferred to another entity, they must be returned to the FCC. Low power licensees must purchase emergency alert system decoder equipment and transmit notices to the public.

FCC broadcast licensees have many additional obligations, too lengthy to elaborate here. These obligations include, for example, specific rules prohibiting obscenity, governing treatment of political candidates, and disallowing broadcast of hoaxes. These obligations will be the subject of future summaries.

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Locate Helpful People

and Organizations in Your Neighborhood

Amanda Huron, Mount Pleasant Broadcasting Club and Prometheus Radio Project

[Get the right people][Conduct outreach][Go to meetings]
[Make a cool tape][Avoid hostile takeovers]

Your town or neighborhood is bound to be full of people who will be excited as heck about being involved with a new community radio station. You need people with many kinds of skills and strengths. Here are a few types of resource people you should start to seek out:

Radio broadcast engineers. Figure out if you know anyone who works at any local radio stations who could direct you to some sympathetic engineers. These folks are often bored with their jobs and want a new, fun challenge. You will want them to explain basic technical stuff to you. Plus, they may be able to hook you up with used equipment from their studios, which will serve your station perfectly well. Now is an excellent time to get them to donate their old analog equipment to you as many big stations are switching to digital production. Here in D.C., we found a couple of radio engineers from an old college station that was shut down in the seventies who are psyched to be helping us out in our effort to start a station.

Tinkerers: Another great resource is your local tinkerer. That is that person that you have met a few times but do not see much of - they spend most of their time in their basement fooling around with junky old turntables, CD players and computers. If you can convince this person that they will suddenly be inexplicably popular and have lots of new friends as a result of the heroic role that they will play in getting your local radio station on the air - you have tapped an incredible resource. You will have given some poor nerd (Pete triDish is a good example) a social life and your neighborhood a radio station!

Radio/TV producers: These people have the technical skills to make some good programming, and again, many of them may be bored at their stations and wanting to be part of a cool new community project. Get them to start training other people in putting radio stories together, so by the time you get on the air, you will have a public affairs crew ready to do some quality reporting. Do not forget about your local college station, if you have one -- students sometimes have more time to work on these kinds of projects, and maybe you can even get a communications student to intern with your station.

Nice lawyers: It will be helpful to have a couple lawyers on hand to answer legal questions and help you draw up basic documents. If you can find lawyers who work with the arts or community non-profit organizations, so much the better -- but any old friendly attorney should do.

Musicians, poets, DJs and other performers: These people will have a vested interest in helping you start a community radio station, since they will probably be performing on it. It is pretty easy to get the support of these artsy types. Throw a big party, set up some turntables and have people spin records all night long, or have a few local bands play, and pass out flyers explaining the idea for the station and giving people contact info. Have petitions out for people to sign, supporting the idea of a local station. This is a fun way to spread the word and will enable to you reach a lot of people

at once.

People who follow through on stuff, who you can trust: This is absolutely the most important kind of person to have. It does not matter so much what their skills are as that they will do what they say they will do. Our local radio group has been very lucky to have blindly stumbled upon a number of these people. Once you get a core crew of trustworthy people who understand what the station is about, you are well on your way.

Some specific outreach ideas. Go door to door giving people information about the station and asking them to sign a petition in support of it; set up a table with info at events like block parties, festivals and concerts; and hold regular meetings in public spaces like the local library, community center or supportive churches. Another thing you can do is get people to host information sessions about the station in their homes and invite everyone on their block (or in their apartment building) to come hear about it and give their ideas. Also, fundraising events (see below) are excellent outreach opportunities.

A Warning. One thing to always watch out for is the crazies. A project like a low power radio station is guaranteed to attract them: people who talk too much in meetings, who want to take over, who think the government is out to kill them, who will misrepresent you in public and turn other people off. I personally have been lucky enough to have dealt with only two such crazy people in a year of organizing. It is a pain, and it takes energy away from the real job of organizing the station, but be prepared, because you will have to figure out how to deal with them.

Outreach to Organizations.

Okay, so it is important to reach out to people in general. But you also want to reach out to specific organizations that can help move your cause along. You will want the support of schools, community-based organizations, businesses, local government agencies, and churches. The more diverse array of groups you have supporting you, the better. A simple way to get support from local organizations is to first figure out all the organizations you and your group have personal contacts with. Then write up a sample letter of support that organizations can personalize and write on their letterhead and send to you. Part of the letter should be their ideas for programming on the new station. Thus, the letter serves two purposes: documenting their support for you, and getting input as to what the community wants on the station.

You should set up meetings with people at such organizations as:

Elementary and high schools, colleges, churches, neighborhood associations, the city council, youth centers, community centers, music stores, nightclubs, any other local businesses (we prefer to work only with locally-owned businesses; in other words, we're not going to the local McDonald's franchise for a support letter); arts organizations; and any other organization you can think of in your broadcast area. Plus, you can contact organizations that are located outside your broadcast area but want to reach people who live in your broadcast area. For instance, there is a record store that is outside our broadcast area but would want to reach all the hip kids who live in our area. Similarly, there is a university that is not located near us but wants to do recruitment among the many Latinos who live in our neighborhood.

Think about whether you want to have local businesses underwrite shows on your station, and if you decide to go that route, ask businesses to include their willingness to support you financially in their letter of support to you.

Go to a lot of meetings

Doing outreach to local organizations means going to their meetings. You can not expect them to take the time to come to your meetings, so be prepared to spend many, many nights at their meetings. Get a core group of people who can talk coherently about the station to divide up the meetings so one person does not end up doing it all. Always take literature about your station, including contact info, and the sample letters of support. You could also write up a simple survey asking people what they want to hear on the station and distribute it at the meetings as well.

Make a cool tape

Another thing we are doing is putting together a sample tape of programming to play at meetings, so people can hear what their community station could sound like. We are including stuff on our tape like: kids interviewing each other about violence in the neighborhood; snippets of local music that does not get played on our other radio stations; excerpts from interviews with neighborhood activists and leaders; people speaking in different languages about why they want a community station and why it would be good for our neighborhood. Your tape would have different stuff on it, but just make sure it reflects the diversity of your area, sounds pretty good and makes people juiced up about the station. You will need access to some recording and editing equipment to put this together. Maybe your radio/TV producer friends can help you out on that particular project.

Avoid hostile takeovers

Some local non-profit organizations will want to take over your station. They will see what an amazing idea it is, and want to turn it to their own nefarious grant-getting ends. For the love of god, do not let this happen. You do not need that much money to start a low power radio station, so you do not need to worry about grants right away, if ever (more on that in the fundraising section). Stay independent. Do not let any one group take over. You will need to have a couple of groups providing you with important help, but make sure those are groups you absolutely trust. For instance, we in D.C. work closely with a local radical church that, among other things, provides us with free studio space, and a local Latino agency that serves as our fiscal sponsor, where two of our four board members work. You will need a couple organizations like that. Just make sure they are not filled with control freaks who want to use your station to make them look good.

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Organizing Your Station Internally

by Amanda Huron, Mount Pleasant Broadcasting Club and Prometheus Radio Project

[the board][Steering Committee][Other Committees][Advisory Committee][Mission Statement][Democracry?][Meeting Tips][Incorporate]

Oh boy, this is a big one. You need to have a clear organizational structure from the beginning, so people understand how decisions are being made, and do not start to freak out about a perceived lack of democracy.

A Board

Our station started as the idea of a handful of friends, who pitched in money to buy the initial equipment. Four of us ended up sticking with it, and we now comprise the Board. We know each other well and have worked together for years on other community projects, and trust each other. We are all long-term residents of our broadcast area (two of us grew up here), which is important for building community support. We live near each other and see each other all the time in the course of our day jobs, our other projects and our social lives, so it is easy for us to be in pretty much constant communication about the station. As the board, we are responsible for ultimate decisions about the station, and for organizing the work that needs to get done.

A Steering Committee

In addition to the board, we also have a steering committee. The steering committee is made up of the people who, over the past year, have gotten really involved in working on stuff for the station and are very committed to it. Our steering committee is made up of about twelve people, including the four board members. These are all people who understand the station mission, who can talk about it well, who represent the idea well to the community and who want to work on it. Because of the diversity of our community, it is important for us that our steering committee be diverse, too.

Other Committees

Then we have a number of working committees. Right now, we have committees working on fundraising/events, outreach/community support, congressional action (that is, making sure Congress does not kill low power FM -- more on that below), and a youth committee. We started off this project with training, technical and programming committees as well; those groups have done a certain amount of work, but right now most of the work is happening with the four listed above. The fundraising and outreach committees are most important at this stage, when we are trying to get support and let people know we exist. The Congressional action committee is important, because if Congress kills low power radio, there is no

point in us doing the other organizing. And the youth committee is a special interest of ours, because we want to really make an effort to bring kids into the station. Committees meet on their own, usually at someones house. At least one member of the steering committee is on each working committee, and serves as the coordinator/facilitator for that group.

An Advisory Committee

Having an advisory committee is a nice way to involve people whose support you want, but who do not necessarily have the time to work with you on a regular basis. Our advisory committee includes a lawyer, a couple radio engineers, a local Spanish video producer, a programmer on the local full-power community radio station, a minister, a labor organizer, and the head of a local Vietnamese youth group. These people literally act as advisors, on technical, legal and programmatic issues. Again, people who represent your community, and who you trust, and who are psyched about this project, are the people you want.

A Mission Statement

It is important to get a concise mission statement put together as soon as possible, so every time someone new gets involved, they understand what your station is all about. As an example, our mission statement is this:

Sample Mission Statement:

"The Mt. Pleasant Broadcasting Club seeks to create a low power non-commercial community radio station for the Washington, D.C. neighborhoods of Mt. Pleasant, Columbia Heights and Adams Morgan. In keeping with the diversity of our broadcasting area, we will seek to air a broad mix of culture and views, with priority given to those who have typically been denied access to the mainstream media. The station will enable residents to share music and opinions, as well as build community through bringing people together to work on a common project."

That is it. Simple -- though you would be surprised at how long it can take a group of people to hammer one out. But once you have one you like, you are set.

Things get more complex when you start to work on a programming policy, which may include such things as,"25% of our programming must be in Spanish," or, "no corporate music may be played on our station," or , "80% of our DJs must live in our broadcast area." You do not need to worry about that stuff right now, though it is good to start thinking about specific programming policy at some point well

before you are actually set to go on the air.

How much democracy?

There are lots of different ways to run organizations -- by consensus, or democracy, or dictatorship. You will have to figure out which is the best way for you. You probably want people to be involved in decision making, but you also need to make decisions relatively quickly so you can get stuff done.

It is good if at least one of the people on your board can be a hard-ass and remind people that, ultimately, important decisions are made by the board. You will find that most people would rather someone else make the hard decisions anyway, so they will not mind if the board takes more responsibility in this area.

A word on meetings

You are gonna be having a hell of a lot of meetings. You need good people who are experienced in facilitating meetings, and the same person should not facilitate every time. Facilitators should be good at: eliciting ideas from people at the meeting; keeping the agenda on track; keeping overzealous people from dominating, but not in a way that puts them down in front of people (this is one of the trickier things); creating a friendly and even funny atmosphere; summarizing what other people have said in the meeting and figuring out what next steps need to be; and generally making people feel good and excited about being part of the project.

Please, please try to keep your meetings to an hour and a half, and make sure everyone knows where the bathroom is before you start. Always do introductions at the beginning, if only so everyone gets a chance to say a few words right away.

If people come in late, and they always do, welcome them but do not let it get you off track, and do not get into repeating everything you said earlier for their benefit. If they want to find out what they missed, they can stay afterwards and ask the facilitator about it.

Incorporating

You should incorporate as soon as possible, so you can prove you exist. It is actually pretty simple and easy. Then get a bank account so you can keep track of all your cash. (I am embarrassed to say that the total assets of the Mt. Pleasant Broadcasting Club are sitting serenely in a tupperware container under my desk in my bedroom. We will be sticking that in the bank as soon as we get incorporated and can get a company account). And you should find a non-profit fiscal sponsor you trust, so people can give you money and write it off on their taxes. You may want to become a non-profit organization, yourself; that takes some time, but you could start the process now. See the section on finding/becoming a non-profit.

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Fundraising

by Amanda Huron,
Mount Pleasant Broadcasting Club and Prometheus Radio Project

[Forget grants][You don't need alot of money][Fundraising ideas][Once you're broadcasting]

One of the absolutely beautiful things about low power radio is how cheap it is. A full studio can be put together with donated equipment, or with used equipment bought cheap.

The transmitter and associated equipment that you are required by the FCC to have will cost you somewhere between $4500 and 6500, if you buy it all new A cheap studio set up using consumer grade audio stuff will cost you between 0 and $1000, depending how much you scavenge and how picky you are.

Keep in mind that consumer grade studio equipment is perfectly adequate, especially when you are starting out and short of cash. It is generally a little noisier, less convenient to use and will break much quicker than good professional machinery- but if you are putting things together on a shoestring, the pro gear can wait. You may need to rent studio space -- but if you are good, you should be able to get some local group to donate a room to you, at least for the first year or so. Then you will have some photocopying expenses, and you may want to pay for a Webster domain name, and a phone line with voice mail so people can get in touch with you that way, and a post office box rental, and incorporating costs, and other minor things that will come up. You should be able to get legal and engineering assistance for free.

Forget grants for now

The main point here is that you do not need grants to do this. Your labor should be all volunteer. People will do this out of sheer love. A few lucky people may be able to tie their work with the station into their day jobs doing community work, so they will be able to work on the station while they are on the clock. And then you will have a few people who will just work on it all the time because they are obsessed. Which is generally a good thing, to be encouraged, unless they are schizophrenic, in which case you do not have to worry anyway, as they will eventually be abducted by aliens or just lose interest.

So you do not need a lot of money

The main thing you need right now is community support, so all your fundraising should also be focused on telling people about your station, and getting their support and their ideas. What we have taken this to mean is: do not have exclusive, $50-a-plate dinners as fundraisers. You should not be that desperate for the money, and you want to bring in as many people as possible, not exclude people with no extra cash. Rich people should be encouraged to write you checks directly, but better to have your events be cheap and accessible to all. You do not need to mimic the snotty fundraising tactics of so many non-profits out there, the gala balls and fancy

dinners and high-priced auctions and such.

Some ideas for getting some money

So how can you raise some money on a small scale?

Have a **benefit concert** with local bands (we had a concert last spring that cost $6 at the door and raised $1300 -- enough to build our entire studio).

Have a **party** at someones house, ask people to bring food and drink, have your DJs take turns spinning records all night, and charge $3 at the door (we made $250 that way one night).

Do **screenings** of local independently produced movies or videos. Have a poetry reading. Ask local performing arts spaces to donate the proceeds from one night of performance. **Set up tables** at local events and ask for donations. Make **t-shirts** and sell them. Make your **fiscal sponsor** and mailing address widely known, so it is easy for people to send you checks.

Once You're Broadcasting

If (once? when?) you actually get the license and get the station up and running, then you may want to consider hiring someone part-time to coordinate all the scheduling and continued outreach and whatnot. So then you will need a more consistent source of money in order to pay that person, if you choose that route.

But even when you are on the air, you should be able to cover all your non-staff costs through benefit events, and through a couple other ways. You could consider asking each DJ to pay $10 a month -- with 168 hours in the week, you may have anywhere from 50 to 150 active DJs, which comes to a steady income of $500 to $1500 each month (of course, that is assuming you can collect all that money -- good luck!).

You could also consider asking locally owned businesses to **underwrite** shows, which could potentially bring in another $1000 or so a month. Be careful with underwriting, though. Make sure you have got a strict set of guidelines in place so you do not end up changing programming to meet the businesses needs. Just keep remembering: you are not that desperate for cash. This is not a typical non-profit organization. But anyway, you do not need to worry about all the expenses of operating a station just now. For now, just focus on doing outreach events that are just as much geared towards getting community support and involvement as to getting money.

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Who Got Left Out
and What Can They Do About It

Pete Tri Dish, Radio Mutiny and Prometheus Radio Project

Many of the people who fought hardest for this new radio service are going to be left out by this proposal:

[Commercial operators][Former pirates][People in big cities]

[Should you pirate or not?][Reasons to pirate]

Commercial operators

This service allows no commercials. Prometheus advocated for this. We recognize that local, for profit, mom & pop radio outlets make good radio and are essential to diversity on the airwaves, and we are sad that there is no place for them in this proposal. However, when we saw the very few slots that are going to be opened in each town, we felt that the more pressing need is for greater opportunities in non-commercial radio. We are ultimately glad that, in this proceeding at least, freedom of speech was considered to be more important that freedom to make a buck.

Former pirates

As mentioned above, if you were a pirate and did not stop when you were told to, you will not be eligible for a license. If you are on the board of directors of the group which you hope will receive a license, you will have to certify (sign a document on penalty of perjury if you are caught lying) that you did not operate after February 26, 1999.

This is a dumb policy, but I feel that it is actually not of great import. If you, personally, have tangled with the Commission in some way, do not be on the board of directors of the non-profit applying for the license (I hate being on the board of directors anyway). No individual can apply for a license in any case - it must be held by a non-profit organization.

People in the big cities

This is the most thouroughy crappy part of the whole thing. As stated before, more could have fit, but they will not because of the simplistic method chosen for giving out the licenses. New York, Chicago, and LA have no new licenses. In the top ten cities, only twenty-six licenses will be allocated. Competition for these will be fierce - I promise you. If you live in one of these major urban areas, this will be covered later in this document under "mutually exclusive license applications."

If you live in New York, Chicago or LA, contact us directly. There will be nothing in this round for you, but we are continuing to fight on this issue and we think that we can win more in the future. In the meantime, we can show you how to do legal unlicensed AM - this has a pathetic range (about 1/2 mile), but can be valuable experience and help establish the groundwork and community support for a larger station in the future.

So the big question in light of these crappy facts is this: Should you start a pirate station if the FCC will not license

you?

This is a really tough question. The media environment has gotten worse over the past few years, and acts of civil disobedience against the media elite are as relevant and justified now as ever. In my opinion, though, the combination of factors that made pirate radio so successful for a few years are shifting in ways that will probably weaken the pirate radio movement:

- It seems doubtful that many courts of law would decide in favor of National Lawyers Guild Committee on Democratic Communications (NLGCDC) style arguments after the LPFM service is passed - the FCC can now make a credible claim that they have a class of licenses for community radio. Few of the other legal arguments, mostly surrounding the regulation of interstate commerce, had very much ultimate chance of success. There is no longer an indifferent, underfunded FCC compliance branch, wavering from tough legal cases. Some cases still have novel approaches, and I do not want to write them off - but I would not bet the store on these legal arguments either. If someone claims that they have a bullet-proof legal argument that can keep them on the air without a license, ask for opinions from several lawyers before believing them.

- The argument that the FCC only gives stations to the rich no longer rings true when they just took considerable political risk to license a thousand new stations across the country.

- The FCC PR team has (slowly, painfully) learned and adopted our language of community service.

- The spaces which we use as pirates will probably soon be licensed to community organizations and godcasting satellite networks, and so pirates will no longer be able to find a place on the dial where they will not be causing what the FCC considers to be (and has engineering evidence to assert to be) interference.

- What causes interference has been recently re-evaluated by a number of studies, and the courts will almost certainly defer to the FCCs engineering department interpretation of these studies. It is clear to us at Prometheus that they could have gone further: I think we can push them to re-evaluate second adjacents in the future. (The second adjacent issue is explained in more detail later.) But for now, the record is mixed on whether a second adjacent spacing does in fact cause interference to certain types of radios when the pirate is close to the edge of the full power station contour. If you do not believe it, try it yourself. It is a limited effect, and not really worthy to be the basis of prohibiting 2nd adjacents, but it is real and all the radical rhetoric in the world can not change it.

- Many of the diverse, more moderate groups that fleshed out this movement and gave it a lot of its political muscle will be licensed, leaving only those who were left out in the big cities plus the hard core ideologues of whatever stripe to assert that the FCC has no right to regulate them.

Are there
still good reasons to be a pirate?

For sure. LPFM never threatened to fundamentally restructure the relations of media power in this country. The cities were left behind, and the chances of winning more slots there in the near future are only moderate. I do not think I would ever personally discourage anyone from unlicensed broadcasting, unless I knew that they were causing substantial interference (which I do not think 2nd adjacents do). But the game has changed dramatically.

Myself personally, I have chosen to focus the next few years of effort on creating LPFM stations, while the opportunity exists. Prometheus Radio Project does not assist Pirate Radio Stations in broadcasting, and we do not operate a pirate radio station. We will discuss what we know about good broadcasting practice with anyone, including pirates. We do not actively encourage pirate broadcasting, but we are in favor of all groups that are trying to give voice to their communities, whether the unfair broadcast laws of this land specifically sanction their actions or not.

This is a little aside, about the FCCs character qualifications.

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Tips for the Application Process

Pete Tri Dish, from Radio Mutiny and Prometheus Radio Project

[Preliminary notes][Certifications][Random notes][How the FCC allocates stations]

[Professional advice - Engineers • Lawyers • Sharks]

The FCC has claimed that in this service, they have strived to create an application system that ordinary citizens can understand and fill out without needing the services of a lawyer or an engineer. How successful they will be in this endeavor remains to be seen. They claim that you can fill in this application in an hour and a half. I say: yeah, right...but in truth, this application could have been far worse than it is.

Preliminary notes:

There is no application fee for non-commercial radio stations, and the licenses are free. They have always been free -- what cost money was hiring lawyers and engineers in competing application hearings. Whatever you heard about thousands of dollars of FCC fees was only for commercial radio stations.

Before you go any further, get yourself a copy of form 318 from the FCC.

There are two ways you can apply: over the web, or on paper. The web application is strongly encouraged by the FCC, because it will be easier for them to administer. The Web application is probably best for you, because it will not allow you to leave spaces blank that

you need to figure out how to fill. If you need to submit a bunch of "exhibits," that might be easier on paper. Exhibits are documents that prove the truth of your statements, or explain why you need a waiver to this or that part of the rules.

There are just 7 pages of application, mostly with boxes that you check yes or no. There are also, however, 25 pages of worksheets, which you must fill out in order to know whether you can honestly check yes or no to the application questions.

You can only apply during your 5 day application window -- not before, not after.

These windows are staggered across the country in five groups of states. The groups are listed at www.fcc.gov/lpfm. The first window is in late May, the other windows will follow in intervals of a few months.

Certifications

When you apply for a license, you merely certify (swear on penalty of losing the license or even perjury) that what you have said is true. You do not have to produce any documentation with your application. (for example, proof of residency, program schedules, organizational documents and so on).

However, there may be a random audits, and if you are audited you will need to produce documentation of certain facts that you have filled in on your application. There are some cases where you need to produce an exhibit to justify saying no where you should have said yes. For example most LPFMs will be able to skip doing an environmental impact statement by certifying that they could truthfully certify no to a set of questions (will your transmitter have impact on any endangered species? Is your building a national historic site? etc). Lets say that your building is a historic site. You would have to file an exhibit: in this case saying that you have already asked the zoning commission and they have granted you permission to erect an antenna on your building, and this exhibit contains a copy of the resolution that they passed granting that permission.

Here is my slightly informed guess as to what it will be like:

1)You go to the FCC webpage, and fill in the exact location of your transmitter site. You may need to know these locations in terms of longitude and latitude co-ordinates, the elevation above sea level, and the height of the structure that the antenna will be built upon. Hopefully they will be able to know all this just from your street address. If they can not, other websites will be able to make this information available to you. (We are working on finding these now).

2) The computer will tell you whether there are any frequencies available at that location. If you possibly can, get several sites around town as possibilities -- one or more may not work, but as long as you have more potential transmitter sites you can keep trying and see if the program finds a hole for you. The other way to do this, of course, is to find the areas in your town (or the immediate suburbs) that the FCC will allow a new radio station, and try to find someone in that zone that will

allow you to use their space to put your transmitter. This need not neccesarily be the same site where your studio will be, though it will be much less expensive in equipment costs if the studio and transmitter are in the same place.

There is a program up on the web that can tell you if there are any spots in your community. It is not neccesarily one hundred percent accurate, and can not be used in place of the FCC program when it comes out. It is very helpful, though, in giving you a general idea. Do not give up if you can not find an LPFM on it -- one thing you can try is all the nearby suburbs, and try every zipcode in town for a general sense. More accurate is to input a series of latitudes and longitudes. The signal can carry a fair distance. The FCC descrtibed the radius of an LP100 to be 3.5 miles, but that is where you get guaranteed reception. You can still often hear a station two or three times further than that guaranteed radius. The best thing presently avaliable on the web is through REC Networks. If you like what you see there, write the good folks at REC networks a nice note -- they are giving you for free something that some people would charge hundreds of dollars for. Better yet, write some of the letters to the FCC and Congress that they ask you to.

If you still can not find a frequency yourself, you may want to try hiring an engineer. See our later section about engineers.

3) You will fill in answers to a bunch of questions. Most of the form is fairly self explanatory. There will be a bunch of questions about your board members, about your organization, some engineering questions and three questions to determine your eligibility for preference points, should there be a competition between organizations.

Most questions you will be able to answer yourself. Some questions you might need our help, and some questions you might need an answer from a lawyer or an engineer. You are welcome to send a completed sample of your form to us, and we will look it over free of charge. We can not guarantee the accuracy of our advice: it is free and we are not professionals. However, I must say that I am often surprised at the inaccuracy of some of the statements that I have heard made by "The Pros" on this issue. Sometimes "The Pros" think that they know things, but it turns out that they are relying on knowledge of other radio services, and have not even looked closely at the new rules for this LPFM. Whenever in doubt, get a second opinion.

Here are some of the persnickety things that the FCC wants to know about the members of the board of directors of your organization:

The organization that is applying for a station has to have board members that meet certain criteria:

a)Your board members and their immediate families must not have any other media ownership interests. This means that none of your board members parents, children or siblings can own (or have a controlling interest in) a radio station, a tv station, a cable network, or a daily newspaper. If they do, they must recuse themselves from making any decisions about the radio station (no big deal, actually). To have a "controlling interest," it means that you have a huge amount of stock in one of those organizations.

b)Should not have been convicted of a drug related crime, and then been "denied federal benefits by a

judge." (You would probably know if this has happened to you).

c)Should not have been convicted of any felonies. (Big corporations regularly get this requirement waived. General Electric, which owns NBC, has been convicted of a number of felonies (fraud, price fixing, tax evasion, etcetera). Because these crimes did not directly involve broadcasting or the FCC, the FCC agreed to ignore those convictions).

d)At least 75& of the board should live within ten miles of the transmitting antenna. For a preference point, they should have lived within that range for the past two years.

e)Should not have had previous run-ins with the FCC.

4) You submit the form. If everything is correct, and the frequency you have chosen is indeed available, you wait God-Only-Knows-How-Long for a response. You will have 18 months to build the station. When you are done, you send in a very simple application for the actual license. This will be automatically granted, if you have everything in order.

5) However, two situations can make this picture less rosy:

a) Petition to Deny: It is also important to realize that when you apply, the Commission will make your application known to the public and anyone in the public has thirty days to file a "petition to deny." Anyone can give any reason for this. Almost all petitions to deny are ignored -- however, it could cause you some extra paperwork and if in the review of the application the FCC discovers that you have lied about something, your application might be denied. It may be the tactic of some nasty commercial radio stations who are still sore because they are mean people and do not want anyone to get LPFM licenses: they may file petitions to deny for every station that applies in town. Keep this in mind: if your application is honest and you have covered all your bases, you have nothing to fear from these boneheads. It goes without saying that you can also file petitions to deny if there is another applicant who in some way intends to abuse the LPFM license that they are applying for. You should also remember that other LPFM applicants may file a petition to deny against you, in order to knock you out of the running... Do not be scared, because it probably will not happen to you. But be ready for it if it does happen!

One thing to be very careful with is your engineering co-ordinates. Word on the street is that many of the broadcast engineers from major incumbent stations will be looking over the LPFM applications with a fine tooth comb to find engineering reasons for a "Petition to Deny." Make sure you have very precise latitude, longitude and height above sea level information on your proposed site. In a dense urban area, 25-50 feet can make a difference!

b) competing applications: This is when more than one applicant wants the same frequency. The process is described in the Media Access Project guide earlier in this publication.

Please indulge your humble author in the following illustrative fictional scenario.

In the town of Mount Fessenden, there is one frequency available according to the FCCs website. There are four applicants who want the frequency for a radio station:

1)The Mount Fessenden Public School Board

2) The Lords Mighty Sword Congregation

3) The Mount Fessenden Open to the Public Community Radio Group

4) Alfonzos Clubhouse, an all ages music venue that wants to broadcast bands on weekend nights.

The FCC looks at the preference points for all of the organizations. You can get up to three points. One is for established local presence in the community, another is for pledging to operate more than twelve hours per day, and the last is for pledging to have eight hours or more of local programming per day. All these applicants receive all three points, except for Alfonzos clubhouse, which has only one because they only plan to broadcast a few hours per week. Alfonzo is out of luck -- his application is denied without further consideration.

This leaves three organizations. The Mighty Sword Congregation refuses to talk to either of the other applicants, because they are well known in the community to be The Secular Spawn of Satan Himself. Jane Marconi, from the Community Radio Group (CRG) approaches the School Board and points out that the CRG members all work during the day, and want to do their programming at night. The School, on the other hand, is only open during the day. Jane proposes that the School Board operate the station from 8AM to 4pm, Monday to Friday, while the CRG will operate it the rest of the week. They agree, and submit a time share agreement to the FCC. The two organizations get to add up their 3 points each, for a total of 6 points. The Construction permit is granted to them, and Mighty Sword is left out.

Then, there is a window in which petitions to deny can be filed. WXYZ broadcast Corporation files a petition to deny, claiming that one of the board members of the CRG was a known supporter of a pirate radio station. The FCC audits CRGs application, and discovers that the board member in question did not operate a pirate radio station, but was a lawyer who had represented a pirate station in the past. The FCC dismisses the petition to deny. However, during the audit an FCC staffer notices a discrepancy in the address of one of the board members stated on the application from the address listed on the supporting documents submitted. The board member is contacted, and explains that he has moved in the past month. The Staff studies this, and discovers that the board of CRG still has 75& or more of its member within 10 miles of the transmitter site. CRG is strongly castigated on issues related to candor in applications and updating of information, but is allowed to retain its construction permit. If there had not been 75& local board members for CRG, they may have lost their third point and would have been left out, leaving only a tie between Mighty Sword and the School District. If that had happened, no deal would be struck and the License would have been split into two equal terms of four years apiece.

Once the station starts, the big hearted folks at CRG offer the Mighty Sword people a Sunday morning show, but Mighty Sword

refuses to return their phone calls. Alfonzo, however, gladly accepts their offer of a saturday night live music show and becomes one of the new stations biggest supporters.

Some further notes at random:

Only "organizations with an educational purpose" are allowed to apply for LPFM licenses. Individuals are specifically prohibited from applying for LPFM licenses. To establish you are an organization and not just Some Random Losers, you will have to submit a copy of your non-profit 501c3 paperwork. If you do not have that, but your organization has existed at least informally for two years, you can certify this to the FCC. This form of certification should be accepted by the FCC as evidence of your existence. The form of the certification should be something like "I, Jane Marconi, hereby certify that the Mount Fessenden Wireless Club had its first meeting on March 20th of 1997, and has regularly met during the ensuing time to pursue its interest in broadcasting." Ask a lawyer to review your statement and then you can submit that as evidence of your organizations existence for more than two years.

There is no engineering study required. A lot of shysters will tell you that an engineering study is REQUIRED. They do not know what they are talking about -- or they are lying. The Commission has deliberately taken a very conservative engineering approach which is very easy to administer. This machete is double edged: Less stations are being licensed than can actually fit on the dial -- on the other hand, those that do get awarded licenses have no chance of causing interference, and these stations do not have to pay for an expensive study. If there are no suitable frequencies in your city, you may want to submit an engineers report with a request for a waiver of some aspect of the regulations. This can get expensive, and there are no guarantees, but we hope that some groups choose to do this so we can find the actual limits of this service. We hope at a later date to convince the commission to allow engineering studies in the twenty-five largest cities to try to allot a few more frequencies, but that wil not happen for at least a year or two.

How the FCC allocates stations

The FCC method for allocating stations under LPFM is actually so simple that I might as well describe it here. The FCC has determined the distance between stations at which it considers substantial interference to occur (we would argue that stations can be much closer without causing any real problems, but that is another story.) The FCC has a number of different classes of radio stations -- for the purpose of example I will talk about the potential interference between a new LPFM and a "Class A" full power radio station. Please remember that a channel is .2 MHz wide -- radio stations in the US can only be on odd decimal points -- 91.1, 91.3, 91.5, etc. No one can use a 91.2, or a 91.4. Interference can occur between these two stations using the same channel (AKA co-channel) at 47 km, so if there is an existing Class A 91.1 FM, the closest 91.1 LPFM is allowed at 67 km (the extra 20 km is so that broadcasters can move their towers or change their facilities within a small radius without throwing the whole system off). Interference to the 91.1 class A station can be caused by a 91.3 LPFM (known for no good reason as the first adjacent) at 36 km away -- so the nearest you can locate

one is 56km with the buffer zone. The closest 91.5 (known as the second adjacent) LPFM could be is 29 km away -- no buffer zone is required for second adjacent. With LPFM licenses, you do not have to worry about the third adjacent channel. We are confident that these rules can be loosened up further in the future, given strong political organizing from our side. The only reason they were not loosened up this time around was because the NAB spent zillions and zillions of dollars on a technical study which proved nothing but looked important to some Members of Congress who had received large campaign contributions from broadcast interests. But I do not even get me started on this one -- we will return to this topic soon.

Professional Advice

Should you get an engineer during the application phase?

Maybe. If you are fairly diligent and feel like you have a basic understanding of the way radio allocations are made, you may not need one. As one engineer described it to me, the service described in the rules seems to be "engineer-proof." You do not need any formal engineering document to apply for LPFM. However, there are some situations where an engineer might be very helpful. For example, if your exact location does not have any frequencies available, the engineer may be able to work with you to figure out another nearby location that will work. An engineer could also help tell you whether a frequency is good or not. If you have a choice between several frequencies, an engineer could tell you which one would be best -- while it is physically impossible under these rules for LPFMs to cause significant interference, some of the new channels allocated may receive quite a bit of interference. An engineers report could also give you a competitive advantage if it comes down to a competition between groups that want to use the channel. An engineer could probably also help to resolve such conflicts by finding alternatives. There are a few strategies for shoehorning a station in that are not permitted under LPFM, but a consulting engineer could (for a fee, perhaps considerable) make a very strong argument for an exemption. This engineers report would need to be attached to your form when you turn it in.

Again, be very careful with your engineering co-ordinates. Do not incumbent stations any thing that could give merit to a "Petition to Deny." Make sure you have very precise latitude, longitude and height above sea level information on your proposed site. In a dense urban area, 25-50 feet can make a difference! Prometheus has researched a few engineers and we can recommend some who have long track records of service to community radio who you can turn to if you decide that you want professional help. Several are considering very low priced packages of services for LPFMs.

How about a lawyer?

Again, maybe. Most of the application you can probably fill out yourself, but it may be worthwhile to have someone check it out before you send it in. There are a few things on the application that are not immediately obvious what they mean (or even what they are about). Our guide, (plus the Media Access Project Guide and the NLG guide) can give you some general answers, but there are always specific, particular situations that come up that these guides can not make sweeping generalizations about. It may also be helpful to have a lawyer around for non-FCC stuff: zoning boards etcetera.

A word about engineers and lawyers

A generally wretched lot, but we have met a few good apples among the ranks of the professional classes. These are some of the people that we talk to when we have questions that are beyond our expertise. You can always call us first and we we can tell you what we know based upon our conversations with experts like these. We generally find that we can answer about 80& of the questions that come our way, and as you know, our services are free. Some of the lawyers listed below have applied for grants (still pending) to be able to offer their services pro bono for LPFM applicants. Others will need to be paid. All of these engineers are friendly and may be willing to answer a few simple questions once or twice on the phone for free, but after that they will need to be paid for their services. Please realize that Prometheus offers common sense advice based upon our discussions with experts, our discussions with the FCC and our reading of the rules. We should not be considered a substitute for "legal" or "engineering" advice if you need it and if you have any doubts, you should consult a licensed professional.

Beware of sharks!

If you have tons of money floating around to hire a professional to do all of this for you, by all means stop reading this boring manual, and call a professional to take care of this so you can return to your golf game. There are outfits out there that are willing to fill out these forms for you for $5000, and some that will put the whole thing together for you for $35,000. If you do not have that cash available, realize that you will almost certainly be able to pull this off with some elbow grease and a few strategic consultations. (given, of course, an available frequency in your town).

One tip about Computers:

The FCC computers have been known to go sour when encountering a lot of traffic. A lot of traffic is anticipated for the application window in May. It has been rumored that the FCCs network does not work as well with Macs, and that Netscape applications crash more often then other browsers when trying to interface with fcc.gov. We do not know how things will play out during the application process, but try to get access to the best internet connection you can while filing for an LPFM license. Do not stress out if you do not have the highest tech equipment in the world, but you would not want to wait till the fifth day of the application window and try to do it on some old Commodore 64 wired to a 1982 modem.

You can not apply for a ten watt license in this round of applications.

If you have your heart set on a ten watt station, I caution you -- the spot that you wanted to use may be taken up by a hundred watt station before you ever get to apply for it. The ten watters are considered by the FCC to be for fill-in only where they can not wedge in a hundred watt station.

What about ASCAP and BMI?

You will be subject to paying them fees. They have a variety of fee structures. There are some national organizations that may be able to negotiate a fee structure for you. For many college radio stations, there is a flat rate of around $400 for BMI, $400 for ASCAP and about $80 for one other group. Over the course of the next year, someone will probably try to negotiate a lower rate for the relatively small coverage radius of these stations.

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Some Ideas About Equipment and Facilities

Pete Tri Dish, from Radio Mutiny and Prometheus Radio Project

[Things to look for in a transmitter][Other stuff you will need][Sample budget]

The Low-Down on Low Power Transmitter Shopping

It is funny, because everyone wants to know right now about transmitter shopping, even though it makes no sense to buy one until you have received your license - which is at least six months from the day that this is being written. But I will humor everyone with a quick guide, which can help you start nosing around and budgeting for the most exciting part of your station, the transmitter.

Things to Look for in a Transmitter

All-in-one versus a bunch of little boxes: It is important to realize that what you need is a set of functions, as opposed to a set of boxes with names on them. Some transmitters (which are generally more expensive) have more of these functions built in. Cheaper transmitters may have less functions built in, and so you may have to buy separate little boxes that do these jobs. Some fancy transmitters may have features or high quality specifications that you will never need, so it makes more sense to have separate boxes. If things are in a series of boxes, they will need connectors and wires, which are often a key point of failure. On the other hand, it is often easier to troubleshoot a discrete part of the chain than to go into the main transmitter and figure out what is going on in there. For example, it may be cheaper to buy a new SWR meter to put in line than to get the one built into the transmitter serviced by the factory.

Low-power FM Shopping List

the functions you need (whether they take place inside the box of the transmitter or not) are:

- **Audio processing** (this includes compressing, limiting, equalization, pre-emphasis, etc.)

- **Stereo encoding** (if you want to run stereo)

- **Generating and amplifying** the actual radio signal

- **Measuring the SWR**

- **Frequency Filtering** of unwanted harmonic

Approximate Cost

100 watt transmitters of this nature can go for from $3000 to $5000, depending on features. Certified 10 watt transmitters can run from $700-$1500.

Type certification

A type certified transmitter is required for a LPFM license - absolutely no homebrew kits will be tolerated. Type certified kits are made at a factory and tested on a spectrum analyzer before they go out the door. Be careful - some transmitters may claim to "meet FCC requirements" but they have not been through the type-acceptance process at the FCC. When they are certified, it means that not only does the manufacturer claim that the equipment meets the FCC specs, but certification means that the FCC engineers have looked over the design, and agree that it is good enough to meet their standards. It further means that the producer of the transmitter is responsible for guaranteeing that it will not emit spurious signals (that interference that the NAB and FCC kept on complaining about from pirate stations).

Consider donating your old pirate rig to a group in the third world where there are less stringent technical standards because the radio dial is not so populated. Prometheus is collecting a list of groups overseas that can use your old gear - get in touch with us to meet your sister station! Or keep it in the closet for the next Y2K style apocalypse scare....

Frequency selection

Some transmitters set frequency using a little screen and buttons, sort of like setting a watch. Some just have thumb switches. Some transmitters, you may have to open up the box and fiddle with some switches - it is doubtful that these are type-certified.

Power selection

The transmitter should be capable of putting out the power that you intend to broadcast at. Note that this is not necessarily 10 or 100 watts exactly. As a result of your antenna height and other factors, your actual transmitter power may need to be substantially more or less than the ten or hundred watt class of service. Thus it is very useful to be able to vary your output power without a lot of fuss - inquire specifically how the power level is adjusted.

Built in meters

Some transmitters have a variety of meters built in to them. It is up to you whether it is more useful to have a separate frequency counter, power meter, SWR meter, modulation monitor, etcetera. They can be useful in troubleshooting other rigs if they are not built in, but they can lead to a tangle of wires and general chaos if they are not inside the same box with the transmitter.

Signal processing

Some transmitters have their signal processing built in. In others, their signal processing takes place in the mixer, or between the mixer and the transmitter. Some will have a built in limiter, which will prevent your audio levels from going so high that you cause interference to other radio stations.

Maximum SWR

This tells you how badly screwed up your antenna can be without the transmitter burning itself up. Another feature that a good transmitter may have is that it will shut itself off if it senses that the SWR is too high. This is sometimes called VSWR foldback.

Solid state vs. tube driven

Most new things you find today (for a hundred watts or less) will be solid state, meaning they use power transistors rather than tubes. Some old transmitters that you may run across may be hard to find tubes for. Be sure that the key components are readily available on the market, and are produced by companies that are not likely to disappear or go into a different business three years from now. A good place to look for replacement parts is a company called RF Parts www.rfparts.com.

Filters

See if the transmitter has all the filtering that it needs internally, or if it needs more to meet FCC specs.

Guarantee

Like everything else you buy, you should compare the terms of the guarantees that the transmitter companies provide.

Service

A good company will provide over the phone or email assistance - some may even offer it toll free or twenty four hours a day. You can also inquire how long it takes them to make repairs if it is necessary, what they bill for those services, etc.

Other Stuff You Will Need

An Emergency Alert System Receiver. These are not currently on the market. What is on the market is an encoder/ receiver, which costs between $1000 and $1500. It is likely that some manufacturer will seize the opportunity to manufacture an EAS receiver only unit, and the cost has been projected to be between $600 and $1000.

For the studio, there are no requirements. I have put on radio stations that had no audio source besides a walkman in my day. Hopefully you will have more than that. You can use consumer audio equipment that you buy at yard sales and have a perfectly respectable set-up for a few hundred dollars. Keep in mind that that stuff will break and your long term planning should allow you to get professional gear - more expensive, but better sounding and built for constant use.

Sample Budget for setting up a radio station

Transmitter	$3000-$4000
PTEK, BEXT compressor	$280
Behringer mixer	$100-$400

Radio Shack and up stereo generator	$0-$150-$300 none/kit/fully assembled
professional Dummy Load	$40
Harmonic Filter	$90
Progressive concepts antenna:	$100-$800
Comet Transmission cable:	$1/ft (60 ft should do)
Belden 9913 Antenna mast and guy wires	$150
Radio Shack 36 foot telescoping Mast EAS receiver	$600-$1200
Shipping and so on	$150
Miscellaneous cables and connectors and hardware	$500
Total Basic non-studio expenses:	$5000-$6500

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Aiding the National Fight for Low Power Radio

Amanda Huron, Mt. Pleasant Broadcasting Club and Prometheus Radio Project

Right now the FCC is in the midst of a battle with Congress over whether the new low power radio licensing system will actually exist. The FCC voted to institute the new system on January 20, 2000. As things stand now, Low Power FM is on track to go into effect in May. If nothing changes, stations will be going on the air this summer.

The broadcasters are fighting hard to get the FCCs decision overruled by Congress. The House of Representatives has passed the Broadcasting Preservation Act of 1999 (H.R. 3439), introduced by Rep. Michael Oxley, a Republican from Ohios Fourth District. This bill forces the FCC to go through an absurd new gauntlet of testing to establish low power radio. Recently a similar bill was introduced in the Senate The Broadcasting Preservation Act of 2000 (S.B. 2068), by Sen. Judd Gregg, a Republican from New Hampshire.

The NAB has been rallying large amounts of support through the distribution of a misleading "interference simulation" audio CD -- a CD containing a computer-created sample that could never occur in the real world! This was reported on in the March 27th issue of the New York Times.

Here is the FCC explanation regarding this CD and other false interference claims. http://www.fcc.gov/Bureaus /Engineering_Technology/News_Releases/2000/nret0005.html

For more info on this dirty tricks campaign by the NAB, you can see the FCCs very informative Allegations and Facts page. http://www.fcc.gov/Bureaus/Mass_Media/Factsheets /lpfmfact032900.html

The FCCs Low Power FM Guide (pdf file) is now available. http://www.fcc.gov/mmb/prd/lpfm/lpfmguide.pdf

They also have a Frequently Asked Questions (FAQ) page. http://www.fcc.gov/mmb/prd/lpfm/lpfmfaq.html

For technical background related to HR3439, visit Christopher Maxwells Counter-Testimony page. http://wrfr.pibc.com /dab/HR3439-counter.html

FCC Chairman Kennards recent Statement. http://www.fcc.gov /Speeches/Kennard/Statements/2000/stwek024.html

FCC Commissioner Tristanis recent Statement. http://www.fcc.gov /Speeches/Tristani/Statements/2000/stgt017.html

So your group may want to focus a certain amount of effort on the national fight for the low power FM service. Doubtless, there will be a few people in your group who love Politics with a capital P. These are the people who vote in every county referendum, follow the school board races and understand how the electoral college works. These people can be your national action committee or whatever they want to call themselves, and organize to:

Bombard your Senators and the President with pro-low power radio messages.

It is best to send letters. You can find their addresses at www.whitehouse.gov and www.senate.gov. Find out if your Senators are co-sponsors of the bill named above. If they are not, urge them to oppose the bills and to write your group a letter supporting your attempts to start a community station. Also tell them that a pro-low power letter, written by some leading Senators, is circulating in the Senate, and that they should sign it to express their support. (For more information on this letter, contact Michael Bracy at the Low Power Radio Coalition, at www.lowpowerradio.org, or 202-661-2065, or mbracy@bracywilliams.com.) If your representatives are such cowardly pawns of the National Association of Broadcasters that they have actually gone and co-sponsored this legislation, tell them they made a big mistake and you and everyone else in your community who is working for your station will not be supporting them in the next election. And if you get a chance to make a personal visit with your representative, by all means get a good group of people together and go do that. Make sure you bring information about your station, petitions with the names and addresses of your supporters, and a tape of proposed programming, if you have one.

**Get your local city council to pass a resolution in support of the new low power radio service,
and your efforts to start a station in your town.**

Hundreds of municipalities (including, Boston, Detroit, Richmond, Seattle, Berkeley, Santa Cruz,and many others) across the country have passed pro-low power resolutions, and it has done a lot to make legislators and policy makers at the federal level realize that if they oppose low power, it would look really bad. For an example of a city resolution in support of a local station (though it does not address the federal creation of a low power service, since that was not in the cards when this resolution was passed), see the one

passed by the Boston City Council, at www.radfrall.org. Once you get your resolution, make sure your congressional representatives know about it.

Lobbying can be fun, but it can also be overwhelming. Do not spend too much of your energy on it at the expense of organizing for your station at the local level. The main thing is to get your group to the point where you will have an absolutely kick-ass station, so when you do get your license and go on the air, we can point to you and say, "Look! There is an example of how this new low power radio service is helping communities engage in civic dialogue, share cultural expression and strengthen local democracy!" Making your station excellent is what is going to make the whole low power radio system fly.

Here is a sample text to send to Congress: If you are planning on building a station in your community, describe it to them and do not be bashful about mentioning the many constituencies and voters that it will serve.

Sample Letter to the Senate

Dear Senator:

It has come to my attention that the Senate is considering a piece of special interest legislation known as the "Radio Broadcasting Preservation Act of 2000," S.2068. Congress has been presented misleading information regarding interference that could be caused by Low Power Radio. I am very excited about these new stations, and I will be extremely sore at public officials who attempt to derail this fantastic breakthrough in democratic local media.

The FCC has made a very thorough study of this issue and has issued an extremely conservative new set of rules. The FCC has not overstepped its regulatory authority, and there is no reason for Congress to get involved in this issue. The interference protections that are built into LPFM are as strong or stronger than the interference criteria for comparable, existing radio services, such as FM translators and full power "short-space" stations. Both of these services have operated for many years without creating any significant interference. The NAB is trying to create a double standard for the LPFMs, because they will be owned by new media voices. I write you to inform you of my strong support of Low Power FM -- I urge you to vote against any legislation which would stop or weaken the Low Power FM service. Please also oppose any "compromise" amendments -- these amendments would in effect destroy the LPFM service. Forcing these tiny LPFMs to conform to the interference restrictions of much

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> larger stations is pointless over-regulation: it would be like mandating that pollution control devices designed for automobiles be installed on all bicycles! I thank you in advance for your opposition to S.2068.
>
> Sincerely,
>
> (name and address)

Digital Radio

Another important thing is to learn about the upcoming fight over the digitization of radio. There may be a way that we can force the broadcasters to change their plan for the future of radio, which all of us are currently written out of. See The Medium is the Mess-up: why digital radio should be better designed than IBOC. on the Prometheus website and get those pens ready to write the FCC on this issue.

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Help Out Prometheus Radio Project

Prometheus Radio Project is a collective of radio activists. We are not a membership organization, or a federation, or a coalition or anything - we are just a group of people who have started a small non-profit organization committed to creating the best opportunities possible for the public in the LPFM ruling. We need more people to join us in our work! If you have skills in radio engineering, law, audio, fundraising, web work and computers, and most of all, community organizing, we need your help!!! And if you do not have any of these skills yet, what better way to learn them? Hundreds of people have asked for our help - far more than we can really assist if our organization does not grow. Join us!

Items we need

If you have a spare one of these items, please remember that we are tax deductible and you can write off the value of your donations. Some of these things the PRP can use, some we will redistribute to a worthy LPFM.

- Spare copies of the NAB engineers handbook, or similar works on Radio Engineering, Audio Production and so on.

- Spectrum Analyzer suitable for broadcast band and harmonics analysis, and other electronic test gear.

- Radio equipment suitable for LPFMs, (Transmitters, SWR meters, coax, antennas, compressors, frequency counters).

- Copies of Radio World and other broadcasting trade magazines.

- Software for frequency searching (Mac if possible, PC could work too).

- Money, printing, postage resources.

- Spare computers or copy machines are always nice - right

now we are doing most of our work on MACs, but we will probably need a PC soon to work with a spectrum analyzer and frequency searching software.

Please do not just sit on whatever information we bring to you community - get your friends to join the ranks of the radio nuts and tell them all about the coming revolution in radio!

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